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10/027,541	12/20/2001	Huan-Lung Gu	1291029	1449

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EXAMINER

VAN PELT, BRADLEY J

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/027,541

Applicant(s)

GU ET AL.

Examiner

Bradley J Van Pelt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation “a second transmission belt;” this limitation is confusing and indefinite because a first transmission belt has not be set forth.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 4, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (USPN 5,755,303).

Yamamoto et al. disclose a hybrid power system with an external auxiliary motor, comprising: a first power unit (1) that drives a primary shaft (12); a secondary shaft (15) driven by said primary shaft in a rotational movement, said secondary shaft being parallel to but not in line with said primary shaft; a first transmission device (13) between said primary shaft and said secondary shaft that transmits torque from said primary shaft to said secondary shaft; an auxiliary power unit (35), comprising an electric motor with a driving shaft (see fig. 1), said

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driving shaft being parallel to but not in line with said primary shaft or with said secondary shaft;  
and a second transmission device (33) that transmits torque from said electric motor to said primary shaft;

said first power unit is an internal combustion engine;

said second transmission device further comprises: a first wheel (33b), mounted on said driving shaft; a second wheel (33a), mounted on said primary shaft; and a second transmission belt (33), running over said first and second wheels, allowing said first and second wheels to drive each other;

said electric motor is connected with a rechargeable battery (48) as an energy source to drive said secondary shaft;

said electric motor, when not operating as a motor, generates electricity to recharge a battery (35 is motor/generator see column 3, lines 25-30);

said second transmission belt is a regular transmission belt.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. in view of Taniguchi et al. (USPN 6,443,871), herein after Taniguchi.

Yamamoto et al. disclose all of the instantly claimed invention except the signal generator (21) is located on the primary shaft, and said first power unit drives a rotational movement of said primary shaft via a transmission box.

Taniguchi shows a signal generator (90) is mounted on a primary shaft (36) for generating timing signals; and a first power unit drives a rotational movement of said primary shaft via a transmission box (16).

To modify the apparatus of Yamamoto et al. so as to provide a signal generator on the primary shaft would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement improves the ability to control the clamping forces of a cvt.

To modify the apparatus of Yamamoto et al. so as to provide a transmission box would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement further improves the ability to obtain the desired gear ratios.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. in view of Fiala (USPN 4,400,997).

Yamamoto et al. disclose all of the instant invention except said second transmission device has a chain and two gear wheels, transmitting torque from said electric motor to said primary shaft; said second transmission device has at least two gear wheels.

Fiala shows said second transmission device has a chain and two gear wheels, transmitting torque from said electric motor to said primary shaft (see column 2, line 40); said second transmission device has at least two gear wheels (see column 2, line 40).

To modify the apparatus of Yamamoto et al. so as to provide a chain and gear wheels would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Fiala that such an arrangement decreases slipping of the transmission device.

9. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. in view of Kawashima (USPN 4,631,977).

Yamamoto et al. disclose all of the instantly claimed invention, except a kick starter is mounted on said transmission box or said primary shaft for starting said first power unit.

Kawashima shows a kick starter (44) is mounted on said transmission box or said primary shaft for starting said first power unit.

To modify the apparatus of Yamamoto et al. so as to provide a kick starter would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Kawashima that such an arrangement improves the cost weight of the vehicle by eliminating the need for an electric starter.

10. Claims 1, 3, 4, 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) over Fiala (USPN 4,400,997).

Fiala discloses a hybrid power system with external auxiliary motor, comprising: a first power unit (1), having a primary shaft (shaft between clutch 3 and engine 5); a secondary shaft (between transmission 4 and engine 5), driven by said primary shaft in a rotational movement; a first transmission device (4), placed between said primary shaft and said secondary shaft, transmitting torque from said primary shaft to said secondary shaft; an auxiliary power unit (6), having an electric motor with a driving shaft (shaft between motor 6 and 8a) said driving shaft

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being parallel to but not in line with said primary shaft or with said secondary shaft; and a second transmission device (7), placed between said primary shaft and said driving shaft, transmitting torque from said electric motor to said primary shaft;

said first power unit is an internal combustion engine (see column 2, lines 47-49);

said second transmission device further comprises: a first wheel (8a), mounted on said driving shaft; a second wheel (8), mounted on said primary shaft; and a second transmission belt (7), running over said first and second wheels, allowing said first and second wheels to drive each other;

said electric motor is connected with a rechargeable battery as an energy source to drive said secondary shaft (see column 2, lines 15-20);

said electric motor, when not operating as a motor, generates electricity to recharge a battery (see column 5, lines 5-7);

said second transmission belt is a regular transmission belt;

said second transmission device has a chain and two gear wheels, transmitting torque from said electric motor to said primary shaft (see column 2, line 40);

said second transmission device has at least two gear wheels (see column 2, line 40).

Fiala does not disclose said secondary shaft being parallel to but not in line with said primary shaft.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the secondary shaft to be parallel with but not in line with said primary shaft, since it has been held that rearranging parts of an invention involves only routine skill in the art.

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11. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Taniguchi et al. (USPN 6,443,871), herein after Taniguchi.

Fiala discloses all of the instantly claimed invention except a signal generator is mounted on said primary shaft for generating timing signals for ignition of said first power unit;

said first power unit drives a rotational movement of said primary shaft via a transmission box.

Taniguchi shows a signal generator (90) is mounted on a primary shaft (36) for generating timing signals;

a first power unit drives a rotational movement of said primary shaft via a transmission box (16).

To modify the apparatus of Fiala so as to provide a signal generator would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement improves the ability to control the clamping forces of a cvt.

To modify the apparatus of Fiala so as to provide a transmission box would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Taniguchi that such an arrangement further improves the ability to obtain the desired gear ratios.

12. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiala in view of Kawashima (USPN 4,631,977).

Fiala discloses all of the instantly claimed invention, except a kick starter is mounted on said transmission box or said primary shaft for starting said first power unit.



Kawashima shows a kick starter (44) is mounted on said transmission box or said primary shaft for starting said first power unit.

To modify the apparatus of Fiala so as to provide a kick starter would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the teachings of Kawashima that such an arrangement improves the cost weight of the vehicle by eliminating the need for an electric starter.

### *Response to Arguments*

13. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley J Van Pelt whose telephone number is 703.305.8176.

The examiner can normally be reached on M-Th 7:00-4:30, 2nd F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9326 for regular communications and 703.872.9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.2168.

BJVP

  
Thomas R. Hannon  
Primary Examiner